

State of The CLAW Address; In 20 minutes or less

Nick Ruest @ruebot
Diego Pino @dpinonavarro



Background

Fedora 3 is End of Life

Phase 1

December 2014-August 2015

Atonement

ethos

“All contributions are
welcome: use-cases,
documentation, code, patches,
bug reports, feature requests,
etc. ***You do not need to be a
programmer to speak up!”***

future.islandora.ca

Thank you Univeristy of Manitoba!

Thank you to our sponsors:



Phase 2

November 2015-Present

Community

We have to do this together

Islandora CLAW is
developed *by* the
Islandora community,
for the Islandora
community.

Community

Community

Community



Community



Islandora CLAW

Introduction

Islandora CLAW (also known as Islandora 7.x-2.x) is the next generation of Islandora. The next upgrade will be compatible with Fedora 4 ([link is external](#)).

For more details, please check out the following resources:

- [Weekly Tech Calls](#)
 - [2015](#)
 - [2016](#)
- CLAW Lessons - webinars on how to develop CLAW
 - Week 01: [Intro to Fedora 4.x](#)
 - Week 02: [Hands-on Creating Fedora 4.x Resources](#)

Repository Structure

- Alpaca: Event driven middleware based on Apache Camel that synchronizes a Fedora 4 with Drupal
- Chullo: A PHP client for Fedora 4 built using Guzzle and EasyRdf.
- Crayfish: Top level container for the various Islandora CLAW microservices, lovingly known as Cray
- docs: Documentation!
- install: Bleeding edge development environment
- islandora: CLAW Drupal modules
- PDX: Top level container for the various PCDM specific Islandora CLAW microservices.

Sponsors

- UPEI
- discoverygarden inc.
- LYRASIS
- McMaster University
- University of Limerick
- York University
- University of Manitoba
- Simon Fraser University
- PALS
- American Philosophical Society
- common media inc.

Maintainers

- [Nick Ruest](#)

Filters ▾

🔍 is:issue is:open

Labels

Milestones

New issue

☐ 🔔 82 Open ✓ 111 Closed

Author ▾

Labels ▾

Milestones ▾

Assignee ▾

Sort ▾

☐ 🔔 Developer documentation documentation

#287 opened 4 hours ago by whikloj

💬 0

☐ 🔔 Update vagrant to use Drupal 8, and remove all Drupal 7 CRUFT. devops drupal Vagrant

#285 opened 2 days ago by ruebot 🏷️ Community Sprint - 08



💬 1

☐ 🔔 June sprint; Kick-off call notes

#284 opened 5 days ago by ruebot 🏷️ Community Sprint - 08



💬 4

☐ 🔔 crayfish code coverage Crayfish enhancement tests

#283 opened 7 days ago by ruebot 🏷️ Community Sprint - 08 📊 0 of 4

💬 2

☐ 🔔 chullo code coverage chullo enhancement tests

#282 opened 7 days ago by ruebot 🏷️ Community Sprint - 08 📊 1 of 5



💬 2

☐ 🔔 Build docs from CLAW Lessons documentation newbie

#281 opened 7 days ago by manez 🏷️ Community Sprint - 08

💬 0

☐ 🔔 Setup codecov.io on PDX and Crayfish Crayfish enhancement PDX

#280 opened 7 days ago by ruebot 🏷️ Community Sprint - 08 📊 1 of 2



💬 2

☐ 🔔 Provide scholarly content types architecture modeling pcdm use case

#275 opened 16 days ago by brylbrown

💬 3

☐ 🔔 log("HERPADERPDERP") · Alnaca

💬 2

CLAW Lessons

CLAW Calls

Wednesdays at 1PM EST

April 27, 2016

Benjamin Rosner edited this page a day ago · 9 revisions

Time/Place

This meeting is a hybrid teleconference and IRC chat. Anyone is welcome to join. Here is the info:

- Time: 1:00pm Eastern Daylight Time US (UTC-4)
- Dial-in Number: (641) 715-3570
 - Participant Code: 304589#
 - International numbers: [Conference Call Information](#)
 - Web Access: <https://www.freeconferencecallhd.com/wp-content/themes/responsive/flashphone/flash-phone.php>
- IRC:
 - Join the #islandora chat room via [Freenode Web IRC](#) (enter a unique nick)
 - Or point your IRC client to #islandora on irc.freenode.net

Attendees

- Nick Ruest
- Jared Whiklo
- Ed Fugikawa
- Melissa Anez ☆* 🌟
- Peter Murray
- Diego Pino
- Ben Rosner

The future is us.

Make the lobster **happy**, not **sad**.



Project Plan & Priorities

islandora.ca/CLAW

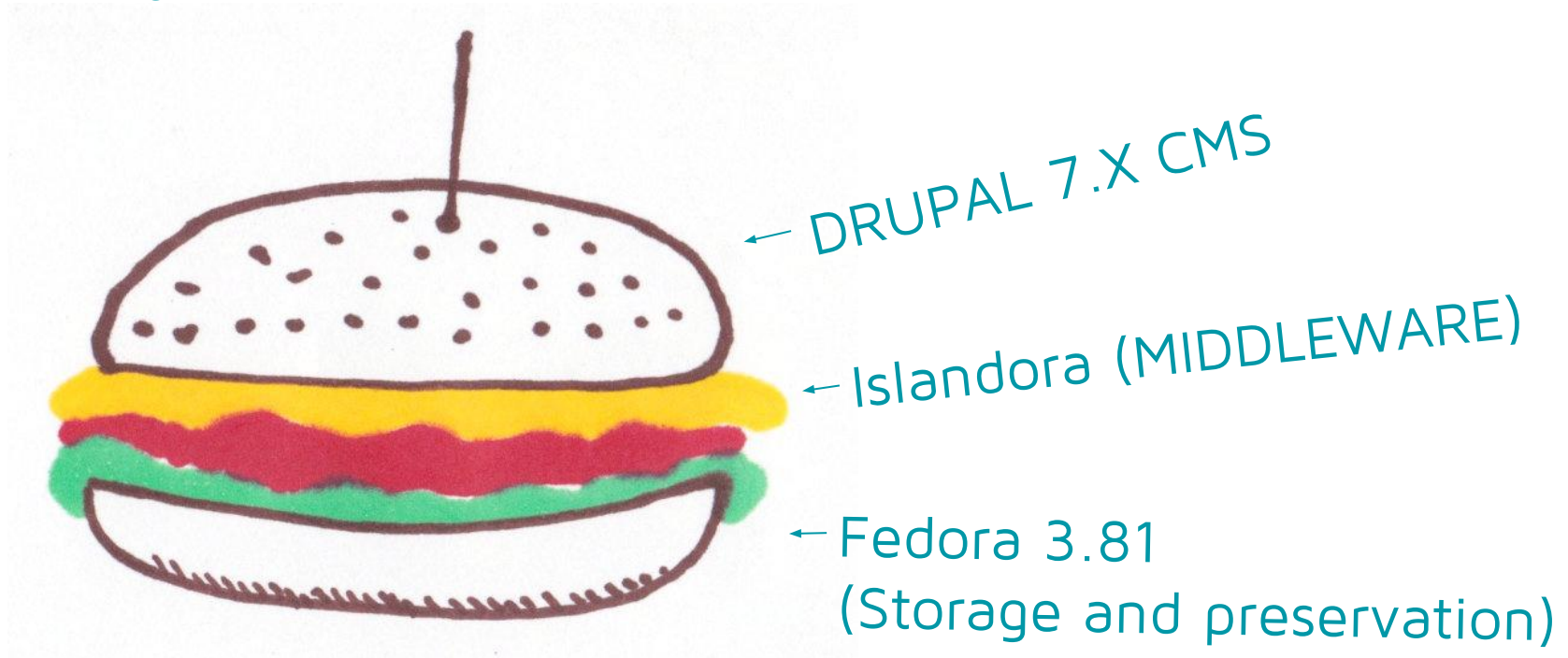
ruestn@yorku.ca

Don't be afraid to contact ***your*** Project Director

Technical Introduction to Islandora CLAW

What we know about current Islandora (7.x-1.7)

<https://github.com/islandora/islandora>



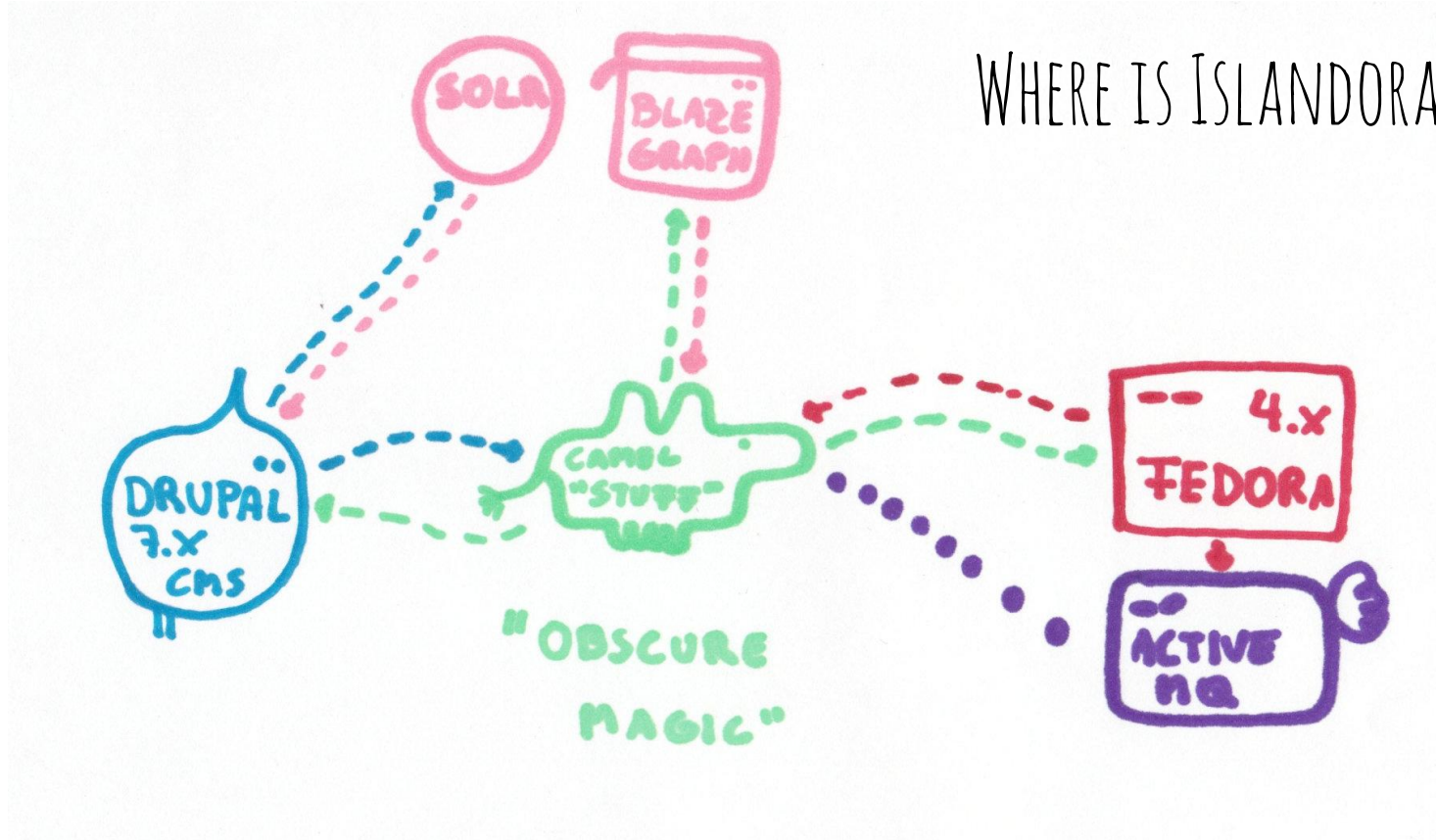
Design Goals for Islandora CLAW

Utilize Fedora 4 & Drupal to its fullest

- Easier to use
 - Better user experience
 - Faster searching, display, and ingest
 - Expose more control of your repository through UI
- Easier to install/configure
- Easier to develop and contribute
- Easier to scale
- Community Based design.

Islandora is no longer Middleware

Islandora CLAW (zoom level 0)

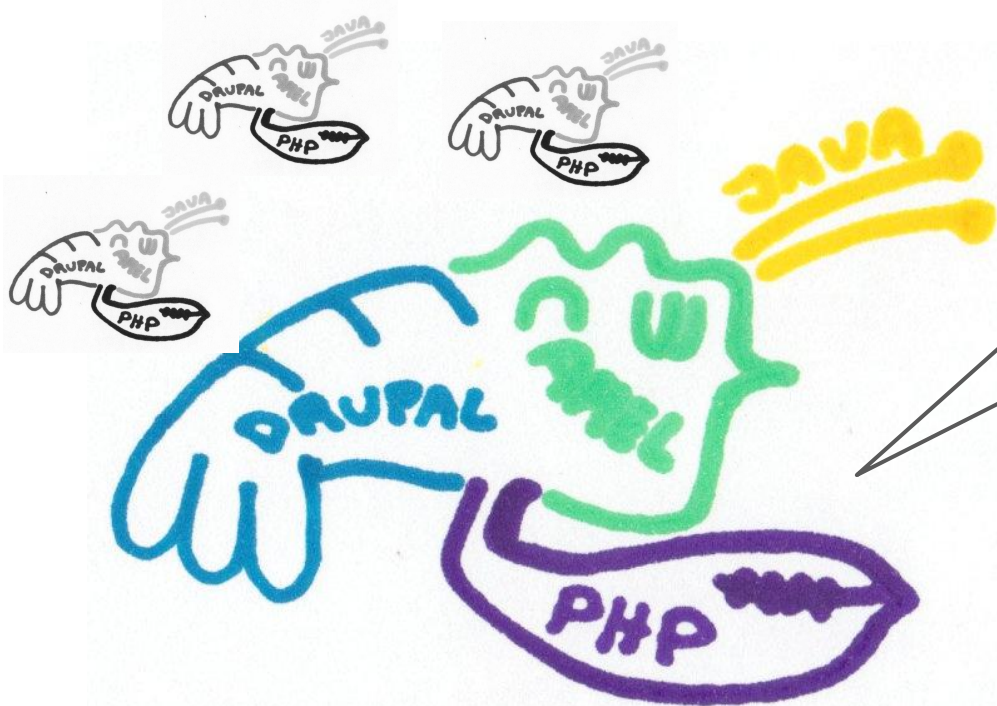


**Islandora-CLAW is a bit everywhere
(and among us)**



Islandora Claw Ecosystem

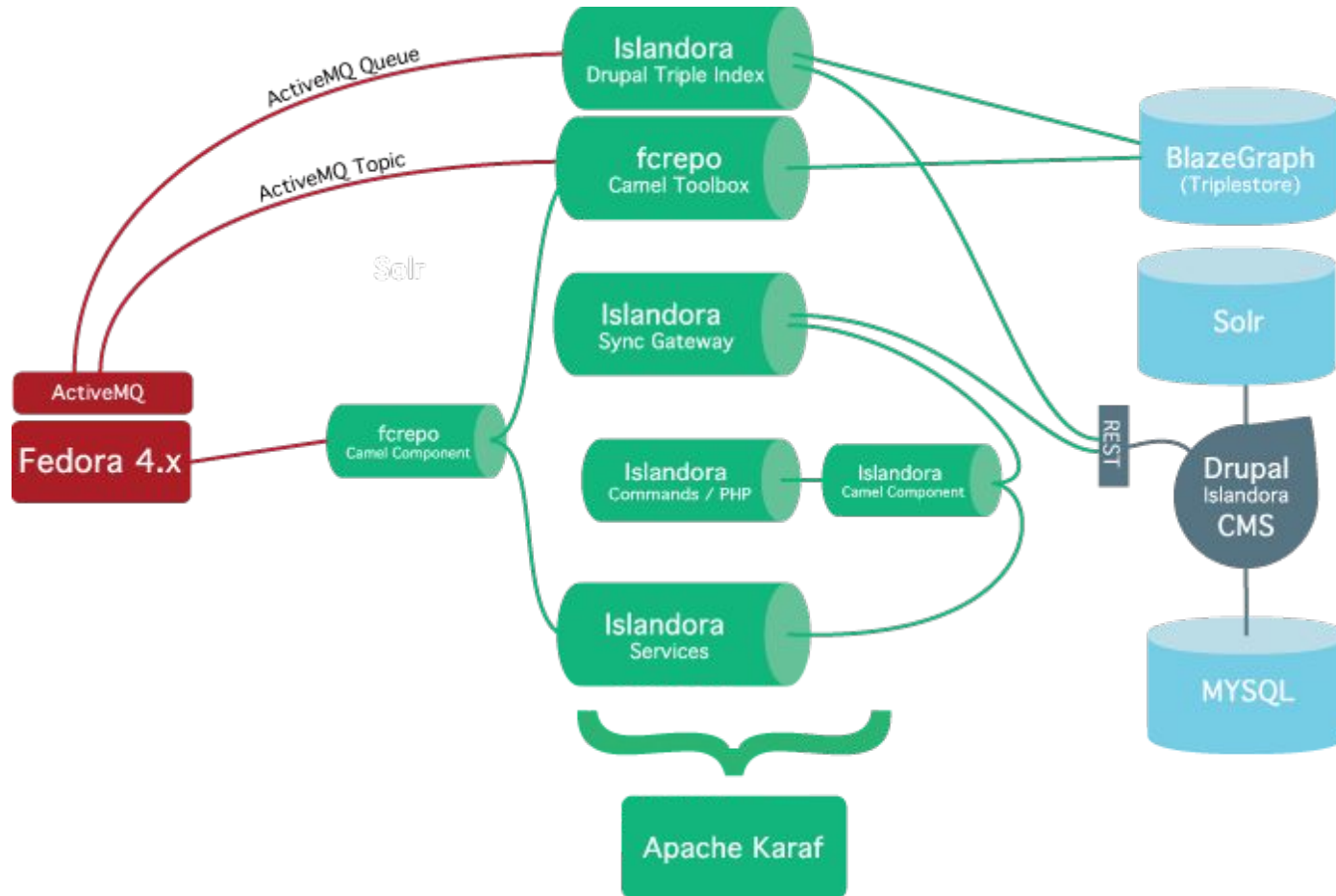
<https://github.com/islandora-CLAW/CLAW>



I make use of
existing tools
integrating myself
into each one. I'm
not a layer, i play
roles in multiple
ones.

**Multi Language
Distributed
Role Separation
Not a layer**

Diagrams are good



Quick Facts about Islandora CLAW

(or how we achieve the Goals)



- Makes use of Drupal CMS completely (tight and close)
- Islandora Solution Packs? Real Drupal Modules
- Resources Live in Drupal and in Fedora 4 (same meaning, different representations)
- There is no "Source Master".
 - Bi-directional Sync between Drupal and Fedora via **CAMEL**
- Exposes endpoints everywhere (RESTful API)
- It's written in PHP(variety of frameworks), JAVA, Spring, Blueprint XML
- It deals with data in a very Async fashion (event driven)
- We have Microservices (Silex, PHP)
- It's a stack of moving pieces that depend on each other

Data definition @ Islandora-CLAW



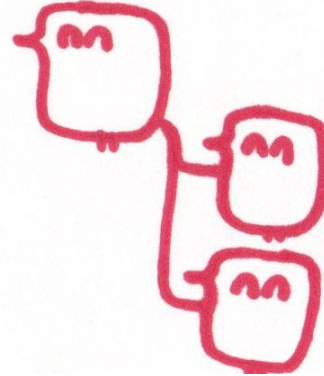
DRUPAL
CONTENT



Islandora generates real
Drupal Content.
(In the future Entities)



FEDORA 4
RDF
RESOURCES



Islandora CRUDs
Real Fedora 4 Resources

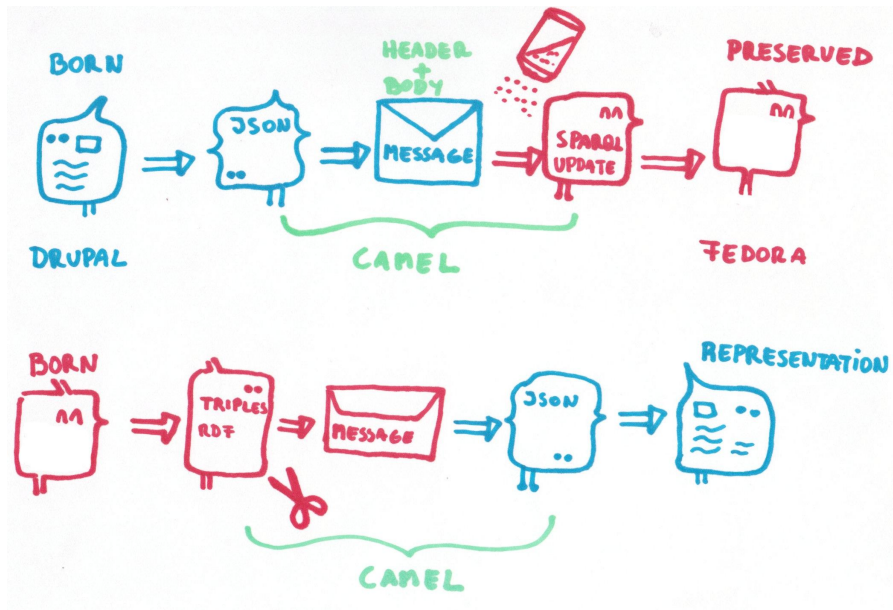
Apache Camel

(Java?)

Don't be scared of Apache Camel

Camel is a framework for building middleware

- Routes can be written in multiple languages (not only Java)
- It's all about Messages: Enterprise Integration patterns and delivery management
- Works out of the box with everything you can think of ^[OBJ]

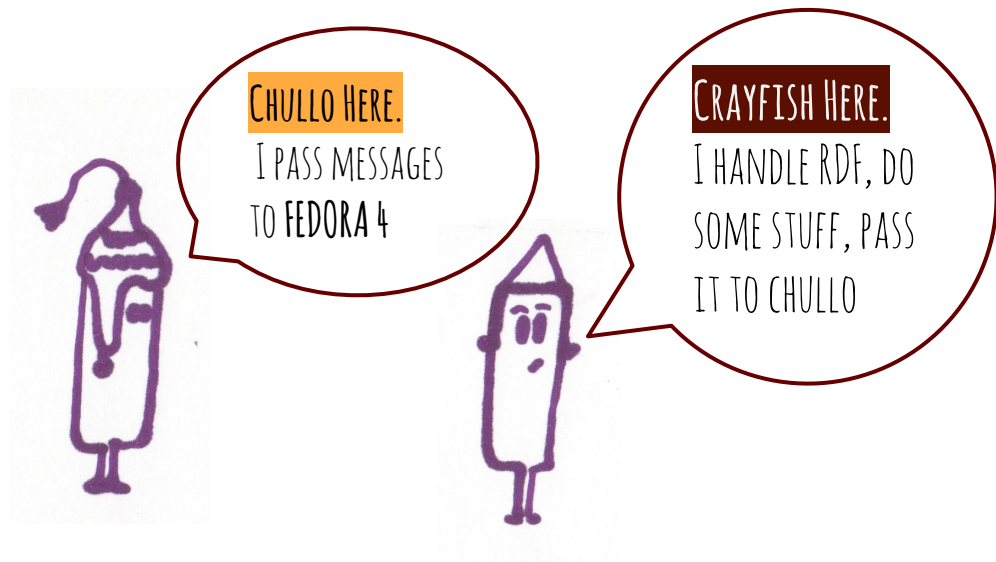
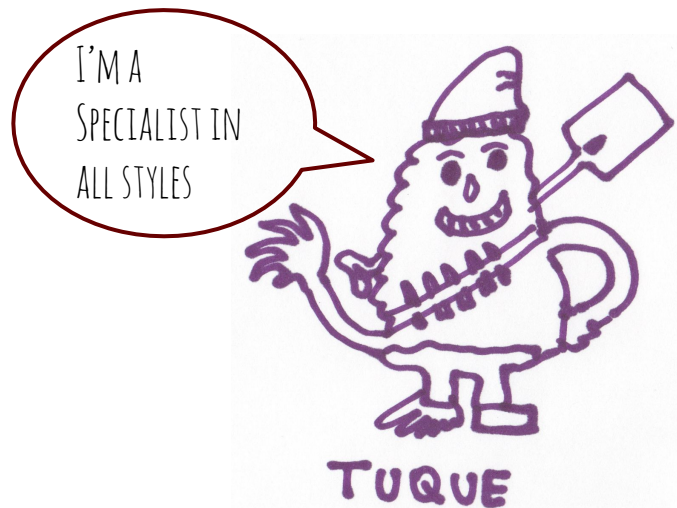


**The immediate Future
¿microservices in CLAW?**

A simple idea

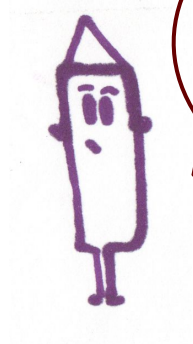
No more Big chunks of all purpose code

Instead lightweight PHP **Services** that do a particular task, reusing code, classes or full packages



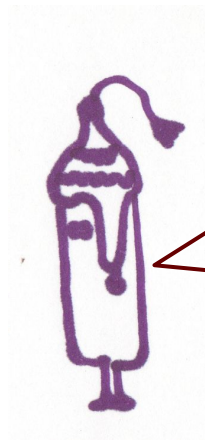
A simple idea

Micro Services: Run at an *HTTP* URL/PORT listening and processing what you send them. Not php code only. Real RESTful endpoints and routes



RESOURCESERVICE

I WILL TAKE THAT HTTP
POST "BULLET" FOR YOU



CHULLO

INVOKE ME WITH THAT MESSAGE
WHEN YOU ARE DONE PROCESSING(
WHATEVER YOU DO, I DON'T CARE)

Role separation: Chullo, where it all started (not a service)



<https://github.com/Islandora-CLAW/chullo>

Uses *EasyRDF* and *Guzzle(PSR-7)* to talk to Fedora 4.

Provides Interfaces and Classes

CLASS NAMESPACE (HU!)

CLASS NAME

Islandora\Chullo

- FedoraAPI (full api)
- Chullo (simplified access to api)
- TriplestoreClient (talks to triple store)

Islandora\Chullo\Uuid

- UuidGenerator (UUID V4 and V5 generator)

Simple ideas require new knowledge

there is More: WE built these Microservices using a PHP Framework named

SILEX!



LET'S AVOID
REINVENTING THE WHEEL
AND DO SOME COOL APPS!



I'M NOT
SILEX



RESOURCE SERVICE
I WAS BUILT IN
SILEX. I CAN USE
YOU, SIMPLE PHP
PACKAGE!!

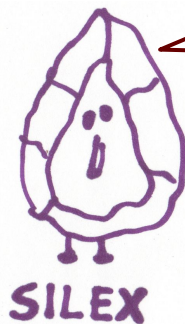
Silex in a few words

<http://silex.sensiolabs.org/doc/usage.html>

- It's a Micro-framework (you can build a one file app!)
- Imagine something "like" Camel but in PHP with less stuff.
- Ready for PHP 7
- Makes handling HTTP requests so simple
- It's based on a larger framework named **Symfony** (DRUPAL 8 is Symfony!)



YOU WANT TO
REPLACE ME!



NO WAY! YOU ARE BETTER
AT ASYNC. BUT I'M PHP.
MY PEOPLE LOVES PHP

Benefits of the CLAW approach

- Fedora 4 is better, faster, safer and better designed than Fedora 3
- You get the **Real Drupal Experience**
- 3rd Party Modules(Drupal)
 - Use all that is out there as normal Drupal users do
- Async is **good**
- Common and flexible Data modelling (Standard Ontologies)
- Simpler contributing to code
- Less code / Better Test Coverage
- **Community based**

Questions or Discussion

..or, time ran out?

ruestn@yorku.ca